SOURCE
From information filed by LECs with FCC

9.4 Maximum trunk occupancy, CCS

DEFINITION
The maximum utilization of an interoffice trunk during the busy hour (36 CCS represents 100% utilization). Typical loadings are 27.5 CCS or 75% of the 36 CCS that a trunk kept busy full time would carry.

DEFAULT
27.5

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995.

9.5 Trunk termination investment, per end

DEFINITION
Per trunk equivalent investment in trunk termination equipment at each end of a trunk. For example, with a default value of $100, the equipment required to terminate 2000 trunks would require a $200,000 investment.

DEFAULT
$100

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995.

9.6 Average direct route distance, mi.

DEFINITION
Average length of trunks that carry local calls directly between two end offices.

DEFAULT
10

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts.

9.7 Average trunk usage fraction

DEFINITION
This input is no longer used in the HM

DEFAULT
0.3

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995.

Toll Traffic Inputs

9.8 Tandem routed % of total intraLATA traffic

DEFINITION
Percentage intraLATA calls that are routed through a tandem.

DEFAULT
0.2

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI traffic engineering experts.

9.9 Average direct intraLATA route distance

DEFINITION
Average length of trunks that carry intraLATA toll calls directly between two end offices.

DEFAULT
25

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts.

9.10 Tandem routed % of total interLATA traffic

DEFINITION
Percentage of interLATA (IXC access) calls that are routed through a tandem instead of directly to the IXC.

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI traffic engineering experts.

DEFAULT
0.2

9.11 Average direct access route distance, mi.

DEFINITION
Average length of direct trunks from wire center to IXC POP

DEFAULT
15

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts.

Tandem Switching Parameters

9.12 Real time limit, BHCA

DEFINITION
Maximum number of BHCA a tandem switch can process.

DEFAULT
1,500,000

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI switching experts.

9.13 Port limit, trunks

DEFINITION
The maximum number of trunks that can be terminated on a tandem switch.

DEFAULT
120,000

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995.

9.14 Common equipment investment

DEFINITION
The amount of investment in tandem switch common equipment, which is the hardware and software that is present in the tandem in addition to the trunk terminations themselves. The cost of a tandem is estimated by the HM as the cost of common equipment plus an investment per trunk terminated on the tandem.

DEFAULT
$1,000,000

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995.

9.15 Maximum trunk fill

DEFINITION
The fraction of the maximum number of trunk ports that can be utilized before the HM will add another tandem switch.

DEFAULT
0.8

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside switching experts.

9.16 Maximum real time occupancy

DEFINITION
The fraction of the total capacity (expresses as the real time limit, BHCA) a tandem switch is allowed to carry before the model dictates adding another tandem switch.

DEFAULT
0.9

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside switching experts.

9.17 Common equipment intercept factor

DEFINITION
The multiplier of the common equipment investment input that gives the common equipment cost for the smallest tandem switch. Thus, for the default common equipment cost of $1,000,000, the common equipment investment for a maximum size tandem is $1,000,000, whereas for a minimum-size tandem, it is $1,000,000 times the value of this parameter, or $250,000 (for the default value of .25).

DEFAULT
0.25

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI switching experts.

10. Transport Investment

Terminal Investment

10.1 Number of fibers

DEFINITION
The assumed fiber cross-section, or number of fibers in a cable, in the interoffice network.

SOURCE
Industry common knowledge

DEFAULT VALUE
24

10.2 FOT capacity, DS-3s

DEFINITION
The capacity, in DS-3s, of the fiber optic terminals (FOTs) that terminate the interoffice transmission systems.

DEFAULT VALUE
12 DS-3s

SOURCE
Industry common knowledge

10.3 FOT fill

DEFINITION
The maximum fraction of total FOT capacity that can be utilized before adding another transmission system.

DEFAULT VALUE
0.8

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI traffic experts.

10.4 FOT installed

DEFINITION
The investment required for the equipment and installation of a fiber optic terminal, per end.

This figure was calculated as follows:

OC-12 ADM equipped for 10 DS-3s (approx. 83% fill)	$29,000
10 x 28 DS-1 interfaces and VT mapping	$8,000
Installation	$ 6,000
Total	$43,000

DEFAULT VALUE
$43,000

SOURCE
The assumptions regarding "FOT, installed" are based on discussions with various transmission vendors over the past several years, in addition to the accumulated knowledge of HAI associates and others.

The OC-12 transmission rate was judged by HAI to be a reasonable compromise between lower-speed systems, such as DS-3 or OC-3, that may have a higher cost per unit of bit rate, but can be more exactly matched to the actual capacity requirement, and higher-speed systems, such as OC-48, that have a lower cost per unit of bit rate, but often would lead to excessive capacity and cost. OC-12 is a commonly-used format for interoffice transmission.

10.5 Pigtails

DEFINITION
The investment in the short fiber connectors that attach the fibers to the FOT equipment via a patch panel.

DEFAULT VALUE
$60.00

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI engineering experts.

10.6 Panel

DEFINITION
The cost of the physical fiber patch panel used to connect 24 fibers to the FOT.

DEFAULT VALUE
$1000.00

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI engineering experts.

10.7 EF&I, per hour

DEFINITION
The per-hour cost for the "engineered, furnished, and installed" activities for equipment associated with the interoffice FOTs, such as the "pigtails" and patch panels to which the FOTs are connected.

DEFAULT VALUE
$55.00

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI engineering experts.

10.8 EF&I, units

DEFINITION
The number of hours required to install the equipment associated with the FOT (see EF&I, per hour, above)

DEFAULT VALUE
32 hours

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI engineering experts.

Medium Investment

10.9 Fraction of structure assigned to telephone

DEFINITION
The fraction of interoffice structure costs assigned to the telephone company. The other portion of this investment is borne by electric utility, cable companies, and other entities.

DEFAULT VALUE
.33

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts.

10.10 Distance, mi.

DEFINITION
Interoffice distance assumed in calculating the average cost per mile for the interoffice transmission system.

DEFAULT VALUE
41 mi.

SOURCE
Set to assure the transmission system investment includes at least one regenerator.

10.11 Regenerator spacing, mi.

DEFINITION
The distance between digital signal regenerators in the interoffice fiber optics transmission system.

DEFAULT VALUE
40 mi.

SOURCE
Based on field experience of maximum distance before fiber regeneration is necessary.

10.12 Regenerator investment, installed

DEFINITION
The installed cost of an OC-12 signal regenerator.

DEFAULT VALUE
$15,000

SOURCE
Indication of regenerator equipment price received during Supercom '96

10.13 Fiber Cable investment per foot

DEFINITION
The installed cost per foot of interoffice fiber cable, given the assumed cable cross-section.

DEFAULT VALUE
$2.00

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts.

10.14 Placement of Transport

DEFINITION
Cost of installation of fiber cable used in interoffice transmission system.

DEFAULT VALUE
$2.00/ft.

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts.

10.15 Splice Spacing, ft.

DEFINITION
The distance between splice points in an interoffice transmission system.

DEFAULT VALUE
20,000 ft.

SOURCE
Estimate based on fact that 34,000-foot pulls are routinely done today. This is a conservative estimate, given that one can purchase 34,000 ft. lengths of fiber

10.16 Splice Cost

DEFINITION
The per-fiber cost of splicing interoffice fiber cable.

DEFAULT VALUE
$15.00

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts.

10.17 Trenching and Resurfacing

DEFINITION
The cost per foot for trenching associated with interoffice fiber cable.

DEFAULT VALUES

Trenching/ft.	$45.00
Resurfacing/ft.	$10.00

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts.

10.18 Conduit, cost and number of tubes

DEFINITION
The cost per foot for placing interoffice fiber cable in conduit, and the number of tubes (conduit) placed per conduit required. The default value provides for an additional maintenance duct and concrete reinforcement where deemed necessary for additional protection of the interoffice cable.

DEFAULT VALUES

Cost/ft.	$4.00
Number of tubes	2

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts.

10.19 Manhole Investment

DEFINITION
Investment per manhole in the interoffice portion of the network.

DEFAULT VALUE
$5,000

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts, based on the use of fiberglass pull boxes.

10.20 Manhole Spacing

DEFINITION
Spacing between manholes in the interoffice portion of the network.

DEFAULT VALUE
1000 ft.

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts.

10.21 Buried Installation per foot

DEFINITION
The additional cost per foot to bury fiber feeder cable in the interoffice network.

DEFAULT VALUE
$5.00

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts.

10.22 Pole Investment

DEFINITION
The installed cost of a 35' Class 4, treated southern pine pole, used in the interoffice network. The cost is split approximately 40/60 material ($180) to labor ($270) and assumes installation by high production machinery such as power auger trucks, as part of a full day of new pole placements, not replacements.

SOURCES
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts.

DEFAULT
$450

10.23 Pole Spacing

DEFINITION
Spacing between poles supporting aerial fiber feeder cable in the interoffice network.

DEFAULT VALUE
150 feet

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts.

10.24 Structure Percentages

DEFINITION
The relative amounts of different structure types supporting feeder cable, by density zone, in the interoffice network. Aerial distribution cable is attached to telephone poles or buildings, buried cable is laid directly in the earth, and underground cable runs through underground conduit.

DEFAULT VALUES

35%	50%	15%

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts.

11. Signaling

11.1 STP link capacity

DEFINITION
The maximum number of signaling links that can be terminated on a given STP pair.

DEFAULT VALUE
720

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995., pg. 26

The STPs used in the model are assumed to have a full capacity of 720 links (that of the DSC DEX STP used by both MCI and Sprint). This is the same capacity used in AT&T's 1990 Competitors' Capacity study, and is considered to be a conservative estimate now.

11.2 STP maximum fill

DEFINITION
This is the fraction of maximum links, as stated by the STP link capacity input, that the model assumes can be utilized before it adds another STP pair.

DEFAULT VALUE
0.8

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995.

11.3 STP investment, per pair, fully equipped

DEFINITION
Cost to purchase and install an STP pair, fully equipped for the maximum number of links.

DEFAULT VALUE
$5,000,000

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995.

11.4 STP common equipment investment, per pair

DEFINITION
Minimum investment for a minimum-capacity STP, i.e.: the fixed investment for an STP pair that serves a minimum number of links.

DEFAULT VALUE
$1,000,000

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995.

11.5 Link termination, both ends

DEFINITION
This refers to the investment required for the transmission equipment that terminates both ends of an SS7 signaling link.

DEFAULT VALUE
$900.00

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995.

11.6 Signaling link bit rate

DEFINITION
This is the rate at which bits are transmitted over an SS7 signaling link.

DEFAULT VALUE
56,000 kilobytes/second

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995. The use of 56 kbps signaling links in an SS7 network is an industry standard.

11.7 Link occupancy

DEFINITION
The fraction of the maximum bit rate that can be sustained on a SS7 signaling link. Thus, the average bit rate is the signaling link bit rate times the link occupancy.

DEFAULT VALUE
0.40

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995. Because STPs are engineered at 40% capacity, so that, in the event of failure, either one could handle the entire load

11.8 C link cross-section

DEFINITION
Number of C-links connecting a mated STP pair. When STPs are deployed in pairs, the connection between them is the C-link. This is a measure of the transmission capacity of the connection between the STPs, which in turn measures how much traffic they can handle.

DEFAULT VALUE
24

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995.

11.9 ISUP messages per interoffice BHCA

DEFINITION
The number of Integrated Services Digital Network User Part (ISUP) messages associated with each call attempt, i.e. the messages switches send to each other to negotiate establishing a voice path.

DEFAULT VALUE
6

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995.

11.10 ISUP message length, bytes

DEFINITION
The average number of bytes in each ISUP (ISDN User Part) message.

DEFAULT VALUE
25 bytes

SOURCE
Bellcore Technical Reference TR-NWT-000317, Appendix A, shows that 25 bytes per message is a conservatively high figure.

11.11 TCAP messages per transaction

DEFINITION
The number of Transaction Capabilities Application Part (TCAP) messages required per database query. A TCAP message is a message from a switch to a database or another switch that provides the switch with additional information prior to setting up a call or completing a call. This information might provide the interexchange carrier an 800, or the destination of the call if the 800 number belongs to the local carrier.

DEFAULT VALUE
2

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995.

11.12 TCAP message length, bytes

DEFINITION
The average length of a TCAP message (see above).

DEFAULT VALUE
100 bytes

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995.

A TCAP message might be two to four times as long as an ISUP message, because it contains much more information. A typical 800 query would be about 94 bytes.

11.13 Fraction of BHCA requiring TCAP

DEFINITION
The percentage of BHCAs that require a database query, and thus generate TCAP messages.

DEFAULT VALUE
0.1

SOURCE
Based on data from the interexchange industry, 10% is a conservatively high number for the local industry.

11.14 SCP investment per transaction per second

DEFINITION
The investment in the Service Control Point (SCP) associated with database queries, or transactions. It is stated as the investment required per transaction per second. For example, an SCP required to handle 100 transactions per second would require a 2 million dollar investment, if the default of $20,000 is assumed.

DEFAULT VALUE
$20,000

SOURCE
Updated Study of AT&T's Competitors' Capacity To Absorb Rapid Demand Growth, April 19, 1995 uses a default value of $30,000 from a 1990 study, but notes that this is "conservatively high because of the industry's advances in this area and the resulting decrease in technology costs since the 1990 study." The default value used in the HM represents the judgment of HAI as to the reduction of such processing costs since then.

12. Operator Systems

12.1 Investment per operator position

DEFINITION
The investment in computers required for each operator position.

DEFAULT VALUE
$3,500

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI experts.

12.2 Maximum utilization per position, CCS

DEFINITION
The estimated maximum number of CCS that one operator position can handle during the busy hour.

DEFAULT VALUE
27

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI experts.

12.3 Operator intervention factor

DEFINITION
The percentage of all operator-assisted calls that require operator intervention. Given the default values for operator-assisted calls, this parameter means that 10% of the 2% operator-assisted calls actually require manual intervention of an operator, as opposed to *automated* operator assistance for credit card calls, etc.

DEFAULT VALUE
10

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI experts.

13. Financial Parameters

13.1 Depreciation lives

DEFINITION
The economic life of various categories of network equipment.

DEFAULT VALUE

loop distribution	20
loop concentrator	10
loop feeder	20
wire center	37
EO switching	14.3
tandem switching	14.3
transport facilities	19
operator systems	8
STP	14
SCP	14
links	19
public telephones	9
general support	7

SOURCE

The model determines the appropriate depreciable lives for each network element based on the approved life span for each element. The depreciable lives used as default values are taken from Bell Atlantic - Maryland Commission prescribed lives. These match closely average FCC assigned projection lives for local exchange plant adjusted for net salvage value.

13.2 Cost of capital

DEFINITION

The overall cost of capital resulting from the average cost of debt and cost of equity weighted according to the debt and equity percentage.

DEFAULT VALUE

debt percent	0.45
cost of debt	0.07
cost of equity	0.119
weighted average cost of capital	0.1001

SOURCE

Based on FCC-approved cost of capital methodology using 1996 financial data and AT&T and MCI-sponsored DCF and CAPM analyses calculating the RBOCs' cost of capital. See, for example, "Statement of Matthew I. Kahal Concerning Cost of Capital," In the Matter of Rate of Return Prescription for Local Exchange Carriers," File No. AAD95-172, March 11, 1996.

Miscellaneous Expense Factors

13.3 Variable overhead factor

DEFINITION

The variable cost of corporate overheads expressed as a fraction of the sum of all capital costs and operations expenses calculated by the model.

DEFAULT VALUE

10%

SOURCE
Based on AT&T 1994 financials, largely drawn from AT&T Form M (equivalent to the ARMIS 4302) and an FCC international report, "International Traffic Data Report," Jan 19, 1996.

13.4 Federal income tax rate

DEFINITION
The combined federal and state income tax rate paid by a telephone company.

DEFAULT VALUE
40%

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI experts.

13.5 Other taxes factor

DEFINITION
This input reflects the cost of taxes which are not levied on income, such as gross receipts, franchise fees and property taxes. ARMIS data submitted to the FCC by LECs provides tax figures corresponding to this amount.

DEFAULT VALUE
5%

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI experts.

13.6 Billing/bill inquiry per line per month

DEFINITION
The cost of bill generation and billing inquiries for end users, expressed as an amount per line per month.

DEFAULT VALUE
$1.22

SOURCE
Based on data found in the New England incremental cost study, section for billing and bill inquiry where unit costs are developed. This study uses marginal costing techniques, rather than TSLRIC. Therefore, fixed costs were added to conform with TSLRIC principles.

13.7 Directory listing per line per month

DEFINITION
This input reflects the monthly cost of creating and maintaining white pages listings on a per line, per month basis.

SOURCE
Judgment based on proprietary information and industry experience.

DEFAULT VALUE
$0.15

SOURCE
Judgment based on proprietary information and industry experience.

13.8 Forward-looking network operations factor

DEFINITION
The forward-looking factor applied to a specific category of expenses reported in ARMIS called Network Operations. The factor is expressed as the percentage of current ARMIS-reported Network Operations.

DEFAULT VALUE
70%

SOURCE
This value is based on PacTel documents from California arbitration proceedings.

13.9 Central office switching expense factor

DEFINITION
The expense to investment ratio for digital switching equipment, used as an alternative to the ARMIS expense ratio, reflecting forward looking rather than embedded costs. Thus, this factor multiplies the calculated investment in digital switching in order to determine the monthly expense associated with digital switching.

DEFAULT VALUE
2.69%

SOURCE
This value is drawn from the New England Incremental Cost Study

13.10 End office traffic-sensitive fraction

DEFINITION
The fraction of the total investment in digital switching that is assumed to be due to traffic-sensitive elements and is thus usage-sensitive.

DEFAULT VALUE
70%

SOURCE

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI engineering experts.

13.11 Per-line monthly LNP cost

DEFINITION
The estimated cost of Local Number Portability (LNP), expressed on a per-line, per-month basis, including the costs of implementing and maintaining the service. This is included in the USF calculations only, not the UNE rates, because it will be included in the definition of universal service once the service is implemented.

DEFAULT VALUE
$0.25

SOURCE
This estimate is based on an Ex Parte submission by AT&T to the FCC in Docket 95-116, dated May 22, 1996.

13.12 Alternative circuit equipment factor

DEFINITION
The expense to investment ratio for all circuit equipment (as categorized by LECs in their ARMIS reports), used as an alternative to the ARMIS expense ratio to reflect forward looking rather than embedded costs.

DEFAULT VALUE
0.0153

SOURCE
Drawn from the New England Incremental Cost Study

13.13 Carrier-carrier customer service per line

DEFINITION
For UNE purposes only, the yearly amount of customer operations expense associated with the provision of network elements by the LECs to carriers who purchase those elements.

DEFAULT VALUE
$1.56

SOURCE
This calculation is based on representative amounts drawn from LEC ARMIS accounts 7150, 7170 and 7190 reported by all Tier 1 LECs in 1995.

To calculate this charge, the amounts shown for each Tier 1 LEC in the referenced accounts are summed across the accounts and across all LECs, divided by the number of access lines reported by those LECs in order to express the result on a per-line basis, and multiplied by 70% to reflect forward-looking efficiencies in the provision of network elements.

13.14 NID expense per line per year

DEFINITION
The estimated annual NID expense on a per line basis, based on an analysis of ARMIS data modified to reflect forward looking costs.

DEFAULT VALUE
$3.00

13.15 Switch line circuit offset per DLC line

DEFINITION
The per-line amount of investment in circuit termination equipment that has been included in both the cost per line of digital switching and the cost per line of DLC equipment, and would therefore be double counted unless an adjustment were made.

DEFAULT VALUE
$35.00

14. Miscellaneous Inputs

14.1 Call Attempts

DEFINITION
The annual total call attempts for the LEC study area being examined.

DEFAULT VALUE
Values are input to the model from ARMIS reports in the following categories:

1. Local (attempts)
2. intraLATA Intrastate (messages or completed calls)
3. interLATA Intrastate (messages or completed calls)
4. interLATA Interstate (messages or completed calls)

SOURCE
These values are taken directly from ARMIS reports submitted to the FCC by LECs.

14.2 Call Completion Fraction

DEFINITION
The percentage of call attempts that are successfully completed. Calls that result in a busy signal, or no answer, or network blockage, are considered incomplete.

The HM uses this value to calculate the unit cost of signaling, the traffic requirements for a wire center module, etc.

DEFAULT VALUE
0.7

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI experts.

14.3 Dial Equipment Minutes (DEMs)

DEFINITION
This value refers to the number of call minutes that consume the capacity of an end office switch, including both originating and terminating minutes.

DEFAULT VALUE
DEMS are included in the HM in the following categories:

Local

Interstate

Interstate

SOURCE
This data is filed with the FCC by NECA in the FCC Monitoring Report.

14.4 Local bus/res DEMs ratio

DEFINITION
Ratio of local Business DEMs per line to local Residential DEMs per line

DEFAULT VALUE
1.1

SOURCE
Industry experience and expertise of Hatfield Associates and AT&T/MCI outside plant engineering experts.

14.5 Intrastate bus/res DEMs

DEFINITION
Ratio of intrastate Business DEMs per line to intrastate Residential DEMs per line

DEFAULT VALUE
2

SOURCE
Determined by analyses performed by Hatfield, AT&T, and MCI.

14.6 Interstate bus/res DEMs

DEFINITION
Ratio of interstate Business DEMs per line to interstate Residential DEMs per line

DEFAULT VALUE
3

SOURCE
Determined by analyses performed by Hatfield, AT&T, and MCI.

14.7 DS0/DS1 crossover

DEFINITION
The multiple of the calculated DS-0 investment (or cost) required to provide an unbundled DS-1 interoffice circuit. It is not utilized by the model directly, but is used only to calculate a DS-1 investment/cost output. The HM conservatively assumes there are no savings to provide a DS-1 compared to providing an equivalent number of DS-0s.

DEFAULT VALUE
24

SOURCE
DS-1 transmits voice, data and signaling at 1.544 Mbps. Therefore, DS-1 is equivalent to 24 DS-0 channels.

14.8 DS1/DS3 crossover

DEFINITION
The multiple of the calculated DS-1 investment (or cost) required to provide an unbundled DS-3 interoffice circuit. It is not utilized by the model directly, but is used only to calculate a DS-3 investment/cost output.

DEFAULT VALUE
28

SOURCE
DS-1 transmits voice, data and signaling at 1.544 Mbps., and DS-3 transmits at 45 Mbps. Therefore, one DS-3 facility is equivalent to 28 DS-1 facilities. The HM conservatively assumes there are no savings to provide a DS-3 compared to providing an equivalent number of DS-1s.

14.9 Public Telephone investment per station

DEFINITION
The cost of a public telephone and pedestal. This input is not used in the HM at present.

DEFAULT VALUE
$1,200

SOURCES
This input value is based on the New England Incremental Cost Study, Manchester, NH, April 3, 1993, which shows the average cost of a public telephone station at $1192.46.